

REMARKS

Claims in the case are 1, 3-6, 8, 9, 12-15, and 22-25, upon entry of this amendment. Claims 1, 8 and 9 have been amended, Claims 24 and 25 have been added, and Claim 7 has been cancelled herein. Claims 2, 10 and 11 were previously cancelled without prejudice in an amendment dated 24 June 2005. Claims 16-21 were previously cancelled without prejudice in an amendment dated 28 October 2004.

Basis for added Claim 24 is found in Claim 23, and in original Claim 2. Basis for added Claim 25 is found at page 17, lines 18-21 of the specification.

Claim 1 has been amended herein such that the linear conjugated oligomeric chain L is selected from formulas (VI-a), (VI-b) and (VI-c), in which p is 2 to 10. Basis for this amendment to Claim 1 is found on page 12, line 1 through page 13, line 22 of the specification. Basis for the amendment to L of Claim 1 with regard to "p being the same for each n linear conjugated oligomeric chain L" is found in the specification as follows: formulas (XII) and (XIII) on pages 15 and 16 (note that p, i.e., the number of thiophene residues, is the same, i.e., 3, for each n linear conjugated oligomeric chain L); and Examples 1 and 7 on pages 21, 28 and 29 (note that p, i.e., the number of thiophene residues, is the same, i.e., 3, for each n linear conjugated oligomeric chain L).

Claims 8 and 9 have been amended to better correspond with presently amended Claim 1.

Claims 1, 3-9, 12-14 and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 6,025,462 (Wang et al). This rejection is respectfully traversed with regard to the amendments herein and the following remarks.

Wang et al disclose conductive polymers having a star structure that include: a central core having multiple attachment sites (e.g., a 1,3,5-hyperbranched polyphenylene core); and a shell of conjugated charge transporting arms radiating outward from the core (e.g., of conjugated oligomers or polymers, such as alkyl substituted polythiophenes). See the abstract; column 4, lines 45-52; and the structure at column 8 of Wang et al.

Wang et al does not disclose, teach or suggest conductive polymers having a star structure, in which each conjugated charge transporting arm has an identical number of monomer residues. Wang et al disclose preparing the conjugated charge transporting arms of their star structured conductive polymers in a step-wise fashion out from the core, which necessarily results in the formation of arms having different numbers of monomer residues, as would be recognized by a skilled artisan. See, for example, Example 2, and column 13, lines 40-47 of Wang et al.

Each linear conjugated oligomeric chain of the compound according to Applicants' present claims has an identical number of monomer residues (i.e., p is the same for each n linear conjugated oligomeric chain). See presently amended Claim 1.

In light of the amendments herein and the preceding remarks, Applicants' claims are deemed to be unanticipated by and patentable over Wang et al. Reconsideration and withdrawal of the present rejection is respectfully requested.

Claims 1-14 and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by International Publication No. WO 01/59030 A1 (**Burn et al**). This rejection is respectfully traversed in light of the amendments herein and the following remarks.

Burn et al disclose dendrimers that include a core-shell structure in which the terminal groups are aromatic groups or substituted aromatic groups. See the abstract and the figures of Burn et al.

The arms of the shell of the dendrimers of Burn et al necessarily include alkenyl groups. See the abstract and page 10, lines 15-26 of Burn et al. The linear conjugated oligomeric chains of the compound according to Applicants' present claims do not include alkenyl groups.

Burn et al do not disclose, teach or suggest dendrimers in which the arms thereof have an identical number of monomer residues. Burn et al disclose preparing the arms of their dendrimers in a step-wise fashion out from the core, which necessarily results in the formation of arms having different numbers of monomer residues, as would be recognized by a skilled artisan. See, for example, page 9, lines 26-29, and Examples 1-4 of Burn et al.

In light of the amendments herein and the preceding remarks, Applicants' claims are deemed to be unanticipated by and patentable over Burn et al. Reconsideration and withdrawal of the present rejection is respectfully requested.

Claims 15 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang et al. This rejection is respectfully traversed with regard to the amendments herein and the following remarks.

For purposes of clarifying the record, the rejection as stated on page 6 of the Office Action of 22 September 2005 appears to include a typographical error as to the claims that stand rejected thereunder. It appears the "22" should be replaced with --23-- in the recitation of the rejection on page 6 of the Office Action.

Wang et al has been discussed previously herein, and discloses conductive polymers having a star structure that include: a central core having multiple attachment sites (e.g., a 1,3,5-hyperbranched polyphenylene core); and a shell of conjugated charge transporting arms radiating outward from the core (e.g., of conjugated oligomers or polymers, such as alkyl substituted polythiophenes). See the abstract; column 4, lines 45-52; and the structure at column 8 of Wang et al.

Wang et al does not disclose, teach or suggest conductive polymers having a star structure, in which each conjugated charge transporting arm has an identical number of monomer residues. Wang et al disclose preparing the conjugated charge transporting arms of their star structured conductive polymers in a step-wise fashion out from the core, which necessarily results in the formation of arms having different numbers of monomer residues, as would be recognized by a skilled artisan. See, for example, Example 2, and column 13, lines 40-47 of Wang et al.

Each linear conjugated oligomeric chain of the compound according to Applicants' present claims has an identical number of monomer residues (i.e., p is the same for each n linear conjugated oligomeric chain L). See presently amended Claim 1.

In light of the amendments herein and the preceding remarks, Applicants' claims are deemed to be unobvious and patentable over Wang et al.

Reconsideration and withdrawal of the present rejection is respectfully requested.

Claims 15 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burn et al. This rejection is respectfully traversed in light of the amendments herein and the following remarks.

Burn et al has been discussed previously herein, and disclose dendrimers that include a core-shell structure in which the terminal groups are aromatic groups or substituted aromatic groups. See the abstract and the figures of Burn et al. The arms of the shell of the dendrimers of Burn et al necessarily include alkenyl groups. See the abstract and page 10, lines 15-26 of Burn et al. The linear conjugated oligomeric chains of the compound according to Applicants' present claims do not include alkenyl groups.

Burn et al do not disclose, teach or suggest dendrimers in which the arms thereof have an identical number of monomer residues. Burn et al disclose preparing the arms of their dendrimers in a step-wise fashion out from the core; which necessarily results in the formation of arms having different numbers of monomer residues, as would be recognized by a skilled artisan. See, for example, page 9, lines 26-29, and Examples 1-4 of Burn et al.

Each linear conjugated oligomeric chain of the compound according to Applicants' present claims has an identical number of monomer residues (i.e., p is the same for each n linear conjugated oligomeric chain L). See presently amended Claim 1.

In light of the amendments herein and the preceding remarks, Applicants' claims are deemed to be unobvious and patentable over Burn et al. Reconsideration and withdrawal of the present rejection is respectfully requested.

In light of the amendments herein and the preceding remarks, Applicants' presently pending claims are deemed to define an invention that is unanticipated, unobvious and hence, patentable. Reconsideration of the rejections and allowance of all of the presently pending claims is respectfully requested.

Respectfully submitted,

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